



Docket No. 500.30310CX2

2123  
#8  
Hy-fx  
7-12-02  
[Signature]

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re the application of:

**RECEIVED**

Applicant : Nobuo HAMAMOTO *et al.*

JUL 08 2002

Serial No.: 09/886,368

Technology Center 2100

Filed: 22 June 2001

For: DIGITAL INFORMATION SYSTEM, DIGITAL AUDIO  
SIGNAL PROCESSOR AND SIGNAL CONVERTER

Art Unit: 2123

Examiner: K. Thangavelu

**SUPPLEMENTAL RESPONSE**

Assistant Commissioner for Patents  
Washington, D.C. 20231

2 July 2002

Sir:

Further to the Amendment filed 2 July 2002 in response to the Office Action mailed 4 April 2002 for the above-identified application, the following remarks are respectfully submitted.

**REQUEST FOR TRANSLATIONS - TO BE FILED**

In the Amendment filed 1 July 2002 in response to the Action of 4 April 2002 in the above-identified application, Applicant indicated that English-language translations of the foreign Patent Office Actions filed with the Information Disclosure Statement (IDS) on 28 January 2002 would be filed upon completion of such translations. Attached hereto are translations of the three Official Actions submitted in connection with the IDS filed 28 January 2002. Applicant respectfully requests

acknowledgment of the English language translations in the next written Communication from the Office.

This Supplemental Response is being timely filed within the shortened statutory period for response set by the 2 April 2002 Action, and therefore, no Petition or additional fee is required.

To whatever other extent is actually appropriate, Applicant respectfully petitions the Commissioner for an extension of the due date for response to the Action mailed 4 April 2002. Please charge any deficiencies in appropriate fees to ATS&K Deposit Account No. 01-2135 (as Order No. 500.31310CX2).

Respectfully submitted,



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ATTACHMENTS:

Copies of Three (3) English-Language  
Translations of JPO Actions

B7552-10EF

Mailing No. 038186

Mailing Date: February 20, 2001

## Translation of Official Action

Japanese Patent Appln. No. 3-057972

Date of Issued: February 5, 2001

Name of Examiner: Juniti Matsuo

Patent Attorney: Mitsumasa Tokuwaka

Article Applied: Patent Law Article 29.(2) &amp; 37

This application should be rejected for the reasons given below. In response, the applicant may file an Argument and/or Amendment within six days from the mailing date.

Reasons

1. This application does not comply with the provisions of Article 37 of the Patent Law for the following points.

It is considered that the inventions of claims 1-16, 17-18, 19-20, 21-22 and 23-25 relate to circuits for storing audio signals in a memory or circuits for reproducing the stored audio signals, whereas the inventions of claims 26-29 relate to analog-to-digital converting circuits.

However, since it is not considered that the problems which the inventions of claims 1-16, 17-18, 19-20, 21-22 and 23-25 intend to solve are identical with those of claims 26-29. Therefore, it is not recognized that the inventions of claims 1-16, 17-18, 19-20, 21-22 and 23-25 have a relation prescribed under the Article 37(1), with the inventions of claims 26-29.

The main portion of the inventions of claims 1-16, 17-18, 19-20, 21-22 and 23-25 differs from that of claims 26-29. Therefore, it is not recognized that the inventions of claims 1-16, 17-18, 19-20, 21-22 and 23-25 satisfies the relation prescribed under Article 37(2), with the inventions of claims 26-29.

It is not recognized that each invention satisfies either of the relations prescribed under Article 37(3), (4) and (5).

2. The invention(s) of the claim(s) is considered to be readily thought of from the disclosure in the under-mentioned publication circulated in Japan or

in foreign countries prior to the filing of this application. Therefore, this application falls under the provisions of Article 29. (2) of the Patent Law and thus is not acceptable.

Remarks

(see the List of References as to the cited references)

As to claim 1:

"A digital signal supply source" and "a player" in claim 1 correspond to "a recording portion 3" and "a store reproducing portion 1" in the cited Reference 1 listed below.

As to claim 7:

In the invention described in cited Reference 1, "a digital audio signal" is stored and is converted into "an analog audio signal" for outputting.

As to claim 8:

As described in the cited References 2 and 3, it would be well known to enable recording of an audio signal in an apparatus which detachably mounts a storing medium on a thin film card. Accordingly, a specific technical difficulty is not recognized in applying such technique to the invention described in the cited Reference 1.

As to claims 9-10:

It is well known to add to a digital signal, appended information representing the content and format of the digital signal as ID. Therefore, a specific technical difficulty is not recognized in applying such technique to the invention described in the cited Reference 1.

As to claims 11-12:

It would be appropriately workable to those skilled in the art as required to provide compatibility with the existing components. So, the inventions relating to claims 11 and 12 could be easily invented by those skilled in the art based on the inventions described in References 1 and 2-3.

As to claim 13:

The cited Reference 4 describes to perform code conversion for input and output of a memory circuit in response to a password coincidence.

The cited Reference 5 describes to invert a signal entered through a data bus in units of bit. The cited Reference 6 describes to replace a signal entered through a data bus is exchanged in units of bit.

A special technical difficulty is not found out in applying the inventions in References 4, 5 and 6 to the invention described in Reference 1. Therefore, the invention relating to claim 13 could be easily invented to those skilled in the art based on the inventions disclosed in References 1 and 4-6.

As to claim 14:

the cited Reference 4 describes to perform code conversion for an input and output of the memory circuit in response to a password coincidence.

Further, the cited Reference 7 describes to invert a signal inputted through an address bus in units of bit.

The cited Reference 6 describes to replace a signal inputted through an address bus in units of bit.

It is not considered that a special technical difficulty is found out in applying the inventions described in References 4, 5 and 6 to the invention described in Reference 1. Therefore, the invention of claim 14 could have been easily invented by those skilled in the art based on References 1, 4 and 6-7.

As to claim 15:

The cited Reference 2 describes a device having a storage area storing contents information and a data area which is accessed based on the stored contents information.

Accordingly, the invention relating to claim 15 could be easily invented by those skilled in the art based on the inventions described in the cited References 1 and 2.

As to claim 16:

As described in the cited Reference 8, it is well known to input different information with the number of times of switch-on or an on time. The invention relating to claim 16 could be easily invented by those skilled in the art based on the inventions described in the cited References 1 and 8.

Claims 17-18:

Even the invention described in the cited Reference 9 detects a signal below a certain threshold value as a voiceless interval to forcibly store a signal corresponding to a zero.

Claims 19-22:

As shown in the cited Reference 10, it is well known to expand or shorten the voiceless interval to thereby change the voice rate. Therefore, it is considered that

the inventions described in claims 19-22 could be easily invented by those skilled in the art based on the invention described in the cited Reference 10.

Claim 23:

It is not considered that a special technical difficulty is not found out in combining the inventions in References 9 and 10.

Claim 24:

It is a mere matter of design which those skilled in the art could appropriately use taking easiness of subsequent processing into account what value to be used for the voiceless code. Therefore, the invention relating to claim 24 could be easily invented by those skilled in the art based on the inventions described in the cited References 9 and 10.

Claim 25:

It is a matter of course that those skilled in the art would naturally work to improve the operability to set a limit for an operation quantity. Therefore, the invention relating to claim 25 could be easily invented by those skilled in the art based on the inventions described in the cited References 9 and 10.

Claims 26-29:

The PWM type D/A converter is rather well known, as described in the cited References 11 and 12.

No reason for rejection to claims other than those pointed out in this office action has been found at the present time. If any new ground of rejection is found out another office action will be notified.

List of the cited references (Publications):

1. Utility Model JP-63-61668 (Utility model JP-A-1-166000)microfilm
2. JP-A-63-247800
3. JP-A-63-228384
4. JP-A-63-55651
5. Utility Model JP-63-157951 (Utility model JP-A-2-77747)microfilm
6. JP-A-3-6792
7. JP-A-3-22059
8. JP-A-62-127925
9. JP-A-62-206600
10. JP-A-56-92600

- 11. JP-A-53-123058
- 12. JP-A-49-73065

Record of prior art search result:

Field under search	IPC version 7	G10L19/00
		G10K15/02
		G06F12/00
		G06F12/14
		G06F17/60
		H03M 1/82
DB name		INSPEC (DIALOG)
		WPI (DIALOG)

Prior art documents:

- 13. Utility model JP-B-63-4238
- 14. JP-A-60-256200
- 15. JP-A-64-84397
- 16. JP-A-63-229500
- 17. JP-A-63-228200
- 18. JP-A-63-197100
- 18. JP-A-2-227712

The record of the prior art search result does not constitute any rejection (i.e. References 13-19 are cited only as of interest).



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JUL 08 2002

Technology Center 2100

B7552-10EF(6/27)

Mailing No.293195

Mailing Date: October 30, 2001

## Translation of Official Action

Japanese Patent Appln. No. 3-057972

Date of Issued: October 9, 2001

Name of Examiner: Yosiaki Minami

Patent Attorney: Mitsumasa Tokuwaka

Article Applied: Patent Law Article 29.(2)

This application should be rejected for the reasons given below. In response, the applicant may file an Argument and/or Amendment within six days from the mailing date.

Reasons

The invention(s) of the claim(s) is considered to be readily thought of from the disclosure in the under-mentioned publication circulated in Japan or in foreign countries prior to the filing of this application. Therefore, this application falls under the provisions of Article 29.(2) of the Patent Law and thus is not acceptable.

Remarks

For claims applied: 1, 3, 6-9, 12-14, 16, 17-20 and 22  
Reference cited:

List of the cited references (Publications):

1. JP-A-02-257364
2. JP-A-02-091795
3. JP-A-02-007188
4. Utility Model JP-62-087681 (Utility model JP-A-63-199388)microfilm
5. JP-A-57-057390
6. JP-A-62-029000
7. JP-A-62-031098
8. JP-A-03-139700
9. JP-A-59-038883
10. Utility Model JP-61-136315 (Utility model JP-A-63-044299)microfilm

For claim 2:

Reference cited: References 1-10 and

11. JP-A-02-220152

For claim 4:

Reference cited: References 1-11 and



- 12. JP-A-03-019496
- 13. JP-A-03-500476

For claims 5, 15 and 21

Reference cited: References 1-13 and

- 14. JP-A-01-138928

For claims 10 and 11

Reference cited: References 1-14 and

- 15. JP-A-03-022059
- 16. JP-A-03-006792

Remarks:

The invention relating to claim 1 is not found to specifically differ from the invention described in Reference 1 (especially see Fig.1 and the publication, page 6, upper right column line 20 to lower left column line 4). Accordingly, any specific difference over the cited Reference 1 is not found in claims 7-9, 14, 16, 19 and 20 as well.

The "terminal device" in claim 3 conducts "to manage a storage area for a memory circuit in a playback function". However, any unexpected favorable result is not found in this effect. Such matter should be of course made on the side of the player or the terminal device. Accordingly, it is a mere matter as workable appropriately by those skilled in the art to conduct such matter on the side of the terminal device.

As to the feature of making speech information as described in claim 6 and the detailed description of this specification, a selling device for speech information is well known from References 2-5 and a portable speech information player is well known from Reference 11. Therefore, any inventive difficulty is not found in making speech information as information to be handled in the invention described in Reference 1.

Claim 12 additionally recites "a storage area or contents memory storing contents information including storage addresses corresponding to a plurality of digital signals, and a data area or data memory which is accessed by the stored address". However, it is usually worked as seen from References 1 and 6-10 to store a plurality of digital signals, and under such situation, the added constructional feature mentioned above is a matter of course. Therefore, the added feature is a mere matter of design.

As to the feature added to claim 13 "plural kinds of operation modes are designated according to the on time or the number of times of on operation of one key switch". Reference 10 shows "to designate plural kinds of operation modes according to the number of times of on operation", which therefore is well known. The switch control according to on time also is well known. Therefore, the added feature is not difficult to conceive.

As to the feature described in claims 17, 18 and 22, "reproduction under a reproducing condition according to ID code", This feature is well known from Reference 6, and hence no difficulty is found to conceive the feature.

Claim 2 has an additional feature "digital signal of which the transfer quantity is large or a digital signal that is updated with time is stored in a buffer memory formed of a fast accessible semiconductor memory". However, since this feature is well known from Reference 1, no inventive difficulty is found in conceiving the feature.

Claim 4 has an additional feature, "a part of the designated digital signal is reproduced and outputted only for a constant time interval". This feature is well known in the field of speech information selling apparatus as seen from Reference 12 or 13. Therefore, no inventive difficulty is found in adding the feature to claim 4.

Claims 5, 15 and 21 have an additional feature "the player comprises a built-in secondary battery, and when the player is connected to a terminal device the power source on the side of the terminal device also performs a charging operation to the secondary battery". Considering this feature, it is well known from Reference 14 to perform charging and data transfer simultaneously. Therefore, any inventive difficulty is not found in adding the feature.

Consideration is made to the feature added to Claims 10 and 11. As seen from Reference 15, data protection based on bit inversion is well known, and as shown in Reference 16, data protection based on conversion of bit sequence is well known. Thus, there is nothing difficult to realize employing these techniques for data protection. No special unexpected result is found in limiting the data to "input or output signal" as in claim 10 or "an

address input signal" as in claim 11. Therefore, the feature is a mere matter of design that is appropriately selectable to those skilled in the art.

No reason for rejection to claims other than those pointed out in this office action has been found at the present time. If any new ground of rejection is found out another office action will be notified.

Record of prior art search result:

Field under search IPC version 7 G10K15/04  
G10L19/00

The record of the prior art search result does not constitute any rejection.



B7552-10EF(6/28)

Mailing No.557626

Mailing Date: November 27, 2001

## Translation of Official Action

Japanese Patent Appln. No. 2-208072

Date of Issued: November 16, 2001

Name of Examiner: Tsuyosi Yamashita

Patent Attorney: Yasuo Sakuta et al

Article Applied: Patent Law Article 29.(2)

This application should be rejected for the reasons given below. In response, the applicant may file an Argument and/or Amendment within six days from the mailing date.

Reasons

The invention(s) of the claim(s) is considered to be readily thought of from the disclosure in the under-mentioned publication circulated in Japan or in foreign countries prior to the filing of this application. Therefore, this application falls under the provisions of Article 29.(2) of the Patent Law and thus is not acceptable.

Remarks

JP-A-61-45987

(Especially refer to the configuration including an audio recording memory and a reproducing memory shown in Fig.6)

Any of inventions relating to claims 1-70 of this application would be easily invented to those skilled in the art by configuring a recording and reproducing apparatus in which an audio recording unit and an audio reproducing unit are separated from each other as described in the above-mentioned cited reference, such that the audio recording unit, the audio reproducing unit or the whole of the recording and reproducing apparatus is formed in the known structure as described in the following references listed below:

## List of the cited references (Publications):

1. JP-A-57-70482 to 57-70483
2. JP-A-57-92494
3. JP-A-57-176516
4. JP-A-59-87499
5. JP-A-61-163397
6. JP-A-61-209498
7. JP-A-63-189296

- 8. JP-A-1-127392
- 9. JP-A-1-137767
- 10. JP-A-1-198795
- 11. JP-A-1-300300
- 12. JP-A-2-94199
- 13. Utility Model JP-63-44737 (Utility model JP-A-1-152400)microfilm
- 14. Utility Model JP-63-118492 (Utility model JP-A-2-39300)microfilm.